

Title (en)
Optical signal multiplexer/demultiplexer employing pseudorandom mode modulation

Title (de)
Optischer Multiplexer/Demultiplexer mit Pseudozufallkodierung

Title (fr)
Multiplexeur/démultiplexeur optique utilisant codage pseudo-aléatoire

Publication
EP 1341323 A3 20050928 (EN)

Application
EP 02023243 A 20021016

Priority
US 8738602 A 20020301

Abstract (en)
[origin: EP1341323A2] An optical signal multiplexer/demultiplexer (96) using an orthogonal pseudorandom (PRN) coding scheme for optical mode modulation to produce a plurality of independent optical signals that may be combined into one multiplex signal (106, 110) for transmission over an optical fiber (98) to the receiving end (112), where the multiplex signal (106, 110) may be demultiplexed by relying on the orthogonal properties of the PRN code to isolate each independent optical signal Si from the transmitted multiplex signal (106, 110). In channels subject to mode modulation distortion, one of the signal components may be used as a pilot signal (72) to obtain a correction for channel mode modulation distortion. The PRN optical signal multiplexer/demultiplexer (96) is particularly useful with polarization mode modulation. <IMAGE>

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H04B 10/135

IPC 8 full level
H04B 10/04 (2006.01); **H04B 10/06** (2006.01); **H04B 10/135** (2006.01); **H04B 10/142** (2006.01); **H04B 10/152** (2006.01)

CPC (source: EP US)
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[X] US 3956626 A 19760511 - ROSS MONTE

Cited by
EP2779127A3

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EP 1341323 A2 20030903; **EP 1341323 A3 20050928**; **EP 1341323 B1 20090211**; DE 60231104 D1 20090326; JP 2003273807 A 20030926; US 2004208634 A1 20041021; US 7280764 B2 20071009

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EP 02023243 A 20021016; DE 60231104 T 20021016; JP 2003049178 A 20030226; US 8738602 A 20020301